



# **SETTLEMENT CHANGE ACROSS MEDIEVAL EUROPE**

## **OLD PARADIGMS AND NEW VISTAS**

---

edited by NIALL BRADY & CLAUDIA THEUNE

**RURALIA XII**



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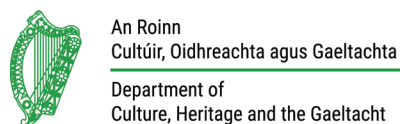
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# Deciphering transformations of rural settlement and land-use patterns in central Adriatic Italy between the 6th and the 12th centuries AD

*Francesca Carboni and Frank Vermeulen\**

## Abstract

Starting with a regional case study, we aim to provide an overview of the transformation dynamics following the disruption of the Roman landscape in the Italian Marche region. We then focus on the local processes of settlement shifts and the new nucleation that occurred in a specific coastal zone bounded by two extremely fluctuating rivers. The application of advanced geoarchaeological techniques and historical analyses conducted through a long, diachronic approach have highlighted how, in the Middle Ages, the human interaction with the landscape and the population development of this area were particularly connected to the crucial relevance of establishing a fluvian landing post for maritime trade.

**Keywords:** *Adriatic Italy, Potenza Valley, port of Recanati, wetlands, changing riverbed.*

## Résumé

*Déchiffrer les transformations du peuplement rural et de l'exploitation des terres en Italie medio Adriatique entre les VIe et XIIe siècles*

À partir d'un exemple régional, nous visons à présenter un aperçu général sur les transformations du paysage rurale de l'Italie médio-adriatique après la fin de l'organisation territoriale d'époque romaine. Ensuite, nous ferons un zoom sur les dynamiques du peuplement qui intéressèrent une zone côtière, délimitée par deux fleuves extrêmement fluctuantes. L'application de techniques géoarchéologiques avancées et une analyse historique conduite sur un horizon temporel de longue durée ont mis en évidence comment, au Moyen Âge, les formes d'exploitation de l'environnement et l'évolution du peuplement de cette zone furent conditionnées par la priorité d'y créer un port fluvial de débarquement.

**Mots clés:** *Italie adriatique, Vallée de la Potenza, port de Recanati, zone humides, divagations fluviales.*

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## Zusammenfassung

*Wandlungen ländlicher Siedlungen und Modelle landwirtschaftlicher Landnutzungen an der mittleren Adria in Italien zwischen dem 6 und 12 Jahrhundert n. Chr.*

Ausgehend von einer regionalen Fallstudie – der Region Marche – wollen wir einen Überblick über die Transformationsdynamik nach dem Niedergang der römischen Territorialorganisation geben. Wir konzentrieren uns auf lokale Prozesse der Siedlungsverschiebungen und – dynamiken in einer bestimmten Küstenzone, die von zwei stark

schwankenden Flüssen begrenzt wird. Die Anwendung moderner geoarchäologischer Methoden und schrift-historischer Analysen, die für einen langen, diachronen Ansatz durchgeführt wurden, haben gezeigt, wie im Mittelalter die Formen der Umweltnutzung und die Entwicklung der Besiedlung in diesem Gebiet durch die Priorität der Schaffung eines Anlegesystems an den Flüssen bedingt war.

**Schlagwörter:** *Italien, Potenza Tal, Hafen von Recanati, Sumpfgebiete, Flussbewegungen.*

## The wider geographic scope

The focus of the present paper is the central part of Italy corresponding to the modern Marche district. The region is situated between the Apennine Mountains and the Adriatic coast and is characterised by a comb-shaped geomorphologic structure in the form of a series of parallel river valleys oriented east – west. The chosen geographic area is devoid of real plains and is characterized by an undisputed prevalence of hilly and mountainous landscapes, with an approximately 180 km long mostly flat coastline. Historical events and hydrogeological factors influenced the various sectors of this territory, which, despite its substantial homogeneity from a physical point of view, had no political and administrative regional unity before the 12th century AD. The name itself, Le Marche, is derived from the German word Mark, ‘border land’ (Fig. 1).

In the Augustan age, the River Esino, which now cuts the modern district into two parts, separated the regiones Umbria and Picenum, respectively, corresponding to the ethnolinguistically distinct areas of protohistoric Gallic and Picenian communities. With the administrative reform of Diocletian, the two regions were unified in the provincia Flaminia et Picenum, while in the 5th century AD, the same River Esino became the edge between Flaminia et Picenum annonarium and Picenum suburbicarium, fixing a limit modelled also on the deep economic and social divide between the part of Italy gravitating towards Milan and Ravenna and the part intended for Rome’s supply.

After the Lombard occupation in the late 6th century AD, the River Musone, immediately south of this limit, represented the fluctuating borderline between the Byzantine Pentapolis and the Duchy of Spoleto, in the context of the demarcation of the Italian peninsula into the two main areas of ‘Romània’ and ‘Longobardia’ (Baldetti 1999; Bernacchia 2004). Throughout the medieval period other much more vigorous borders were established, like those of the dioceses and of the Lombard duchies.

Furthermore, an important internal division corresponded, and still corresponds, to the territorial corridors represented by the river valleys where the microregional diversity of the landscape favoured the creation of real settlement chambers, each offering diverse opportunities for human societies in the exploitation of the natural resources.

## The Potenza Valley Survey project

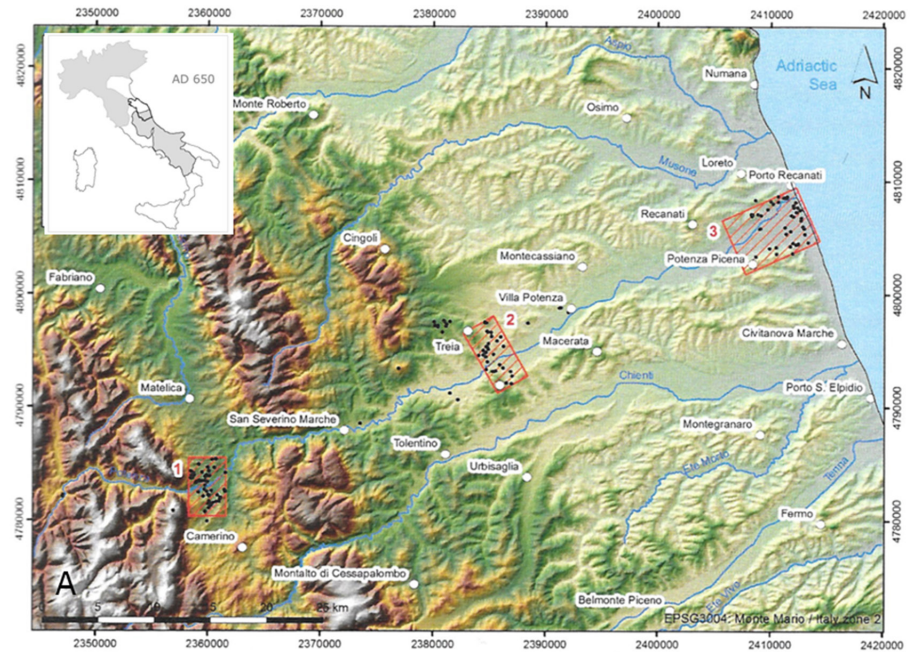
Despite a conspicuous historical bibliography, probably stimulated by the abundance of written sources, up until now no regional synthesis exists that combines evidence of pottery production, the analysis of building techniques, and reconstructions of medieval central-Adriatic landscapes based upon archaeological data.

Any attempt to compare and classify, from a typological point of view, the evidence dated to the timeframe proposed here is therefore still difficult. However, during the last two decades certain sectors of this region have been the object of a holistic analysis of the settlement distribution and evolution from a longue durée perspective, thanks to a series of projects undertaken by teams from Italian and foreign universities, two of which, carried out by the Universities of Macerata and Urbino, respectively, particularly targeted the restitution of the early medieval and medieval landscape (Moscatelli 2014; Sacco 2018).

Our own examination is mainly based on the results of a geo-archaeological project conducted since 2000 by a team from Ghent University in southern Marche in the valley of the River Potenza. This was in Roman times a very strategic and dynamic corridor, connecting the Adriatic with the upper Tiber region, and became, due to the political and military events of post-classical periods, the buffer zone between different dominions and territorial divisions (Fig. 1)

In the Roman period, the valley was traversed by the diverticulum to Ancona of the major highway Via Flaminia, along which the inland urban centres of

Fig. 1: A: location of the Potenza Valley Survey project sample areas in the central Marche. In the box: the Marche region in the Italian Peninsula (in grey the areas under Lombard domination around AD 650). B: Physical map of central Adriatic Italy with the fully developed urban network and road system of the Imperial age. The urban centers, roads, and rivers mentioned in the text are highlighted (© Francesca Carboni, Frank Vermeulen).



Septempeda and Trea had developed. From the latter town, another road headed through the lower valley to the city of Ricina and the coastal colony of Potentia. All these Roman cities were gradually abandoned in high medieval times and most of their remains are now still buried under hectares of farmland or have been partially destroyed by modern building activity.

A GIS-based multidisciplinary approach, using non-destructive methods like remote sensing applications (in particular aerial prospections and intra-site geophysical surveys), integrated with intensive artefact surveys and a systematic geomorphologic study of the area, focusing on three large sample zones, has allowed the reconstruction of the settlement dynamics in this territory from the Iron Age to the 6th century AD (Van Limbergen *et al.* 2017b; Vermeulen *et al.* 2017). Some 89 well-defined Roman settlement sites were identified and classified within a site typology, ranging from the smallest house units to farms, villae, vici, and towns.

The best evidence comes from the lower coastal valley, where the ager Potentinus incorporated low hills and a wetland of lagoons and swamps that was separated from the sea by a sandy beach ridge, traversed by the meandering River Potenza (Fig. 2, A). This wide alluvial plain was a fertile area, where prime agricultural land could be created through attentive management and drainage, efficiently organised within the Roman *centuriatio*. Through a combination of gridded artefact surveys, aerial photography, and geomorphologic augerings we could understand the different technical solutions adopted by Romans in order to develop *longue durée* farms, even in areas



naturally prone to flooding. Finally, we could also identify several amphora workshops in the area at the junction with the sea, where the beach ridge with its important coastal north – south road was a perfect location for activities such as clay extraction and pottery production, thus revealing the presence of an active rural community supplying local and overseas markets during the first two centuries of our common era (Van Limbergen *et al.* 2017a).



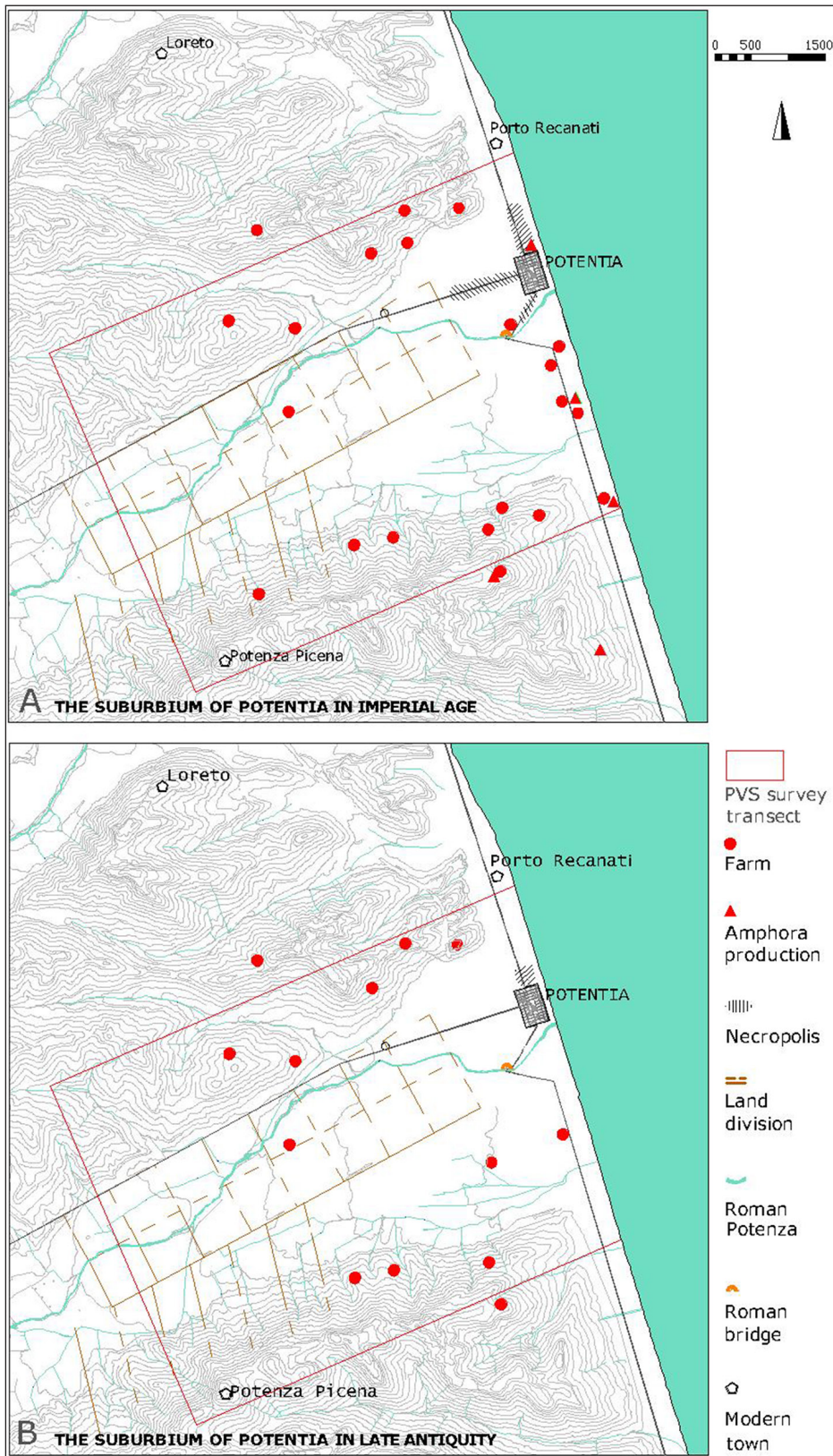


Fig. 2: Evidence from artefact surveys and topographical research on the development of the rural settlements in the immediate hinterland of Potentia from the first Imperial age (A) through Late Antiquity (B) (© Francesca Carboni, Frank Vermeulen).

### From the end of the Roman towns and villas to the formation of medieval villages (6th – 9th centuries AD)

The contribution of our systematic research shows that population dynamics, concerning both the urban centres and the rural sites, had a parallel evolution. In the Potenza Valley, the dispersed settlement patterns associated with the Romans started to decline noticeably from the 2nd century onwards, followed by an all-time low during the 3rd century. The downward trend in site numbers continued into the Late Antique phase, when it is important to note that mainly the larger sites, such as the large farms and villas, were still occupied in the 4th and 5th centuries, while the simple house units and smaller farms were apparently definitively abandoned (Fig. 2, B).

The devastation of the Byzantine – Gothic wars (AD 535-553) damaged the countryside severely and further induced the decline of urban centres. The combination of the survey evidence with the excavation data available for this and other sectors of the region proves that even the most resistant rural sites did not reach the 7th century and failed to maintain a role in the territorial organisation, despite their possible longer squatter occupation.

If in the Marche, as elsewhere in Italy, the disarticulation of the Roman settlement system seems thus to have preceded the arrival of the Lombards (ca. AD 580), there is no doubt that their invasion represented a breaking point for the regional settlement patterns. Nonetheless, substantial signs of continuity in the towns and the more-resilient rural settlements, located in particularly favourable positions, are attested in the upper Potenza Valley, near the Umbria-Marche Apennines, a strategic entranceway for the expansion of the Lombard Duchy of Spoleto in the Adriatic region (Carboni 2015).

Advancing towards the middle valley, it becomes more apparent that the gradual abandonment of the Roman central places coincided with the breakup of the rural settlement system and, from the end of the 6th through the beginning of the 7th century AD, this signalled the start of the Early Middle Ages, indicated by the concentration of the dispersed population in centralising villages.

When examining the evolution of the cities in the Marche region, we see that the most striking difference between the Byzantine and the Lombard sectors concerns the development of the urban centres further south along the coast. Indeed, all the previous Roman towns situated above the River Musone survived, while those located below that line vanished.

The pre-eminence assumed by the port centre of Ancona in the second half of the 6th century demonstrates that the new Byzantine defensive system was strictly linked to military requirements and the need to preserve the indispensable sea connections. Conversely, the Lombard conquest of the southern sector of the region

led to the extreme consequences of the definitive failure of the Roman political organisation and the trade network within the orbit of the ancient Adriatic harbours.

Besides this, when the previous classical cities were abandoned, we can reconstruct similar transformations of the occupation patterns. It was above all the geographical factor that guided the local communities towards the choice of moving to fortified settlements on high ground, in the two differently dominated territories<sup>1</sup>.

Our study has well highlighted that the manner in which the four towns in the Potenza Valley disappeared, or rather how their population resettled in one or more nearby upland sites, varied depending on their location in relation to crucial positions for the control of access to the valley, the road network, and the course of the river.

In the upper valley, the towns of Septempeda and Trea were still sparsely and randomly occupied until the Lombard age and were then characterised by the establishment of a '*pieve*' (rural church) within the previous city walls, whilst their residual population had already moved to nearby hilltops, setting the villages from which the medieval towns of San Severino Marche and Montecchio developed (Carboni 2017).

Indeed these new and higher-located centres ended up controlling a territory more or less corresponding to the catchment area of the former Roman towns, whereas the sites originally occupied by *villae rusticae* did not seem to evolve into *longue durée* settlements with an administrative control function.

Also at Ricina, in the middle Potenza Valley, written sources testify to the presence of a high medieval *pieve*, placed just outside the eastern edge of the urban walls. Nevertheless, the location of the town, along the valley's secondary bottom road leading to *Potentia*, determined that its slow abandonment was followed by a scattered and polycentric occupation of the surrounding hilltops (Carboni – Vermeulen 2014).

More miserable, finally, was the fate of *Potentia*. Despite the fact that literary sources attest the presence of a bishop at the beginning of the 5th century AD and both excavations and surveys have recorded the discovery of some imported pottery products until the second half of the 6th century, archaeological evidence testifies to

1 These safely and strategically located sites of high medieval origin are better recognizable in the central part of the Marche, where they have maintained distinctive features with respect to the surrounding areas, while in the South this settlement phase was been further obliterated by the massive presence of *castella* dating from the 10th century AD. An exemplary kind of population shift has been archaeologically documented, in the Byzantine sector of the region, for the municipium of Forum Sempronii, whose inhabitants moved to the hilltop village, which was then transformed into the bishop's seat city of Fossombrone (Ermeti et al. 2015).



severe urban decay as well as an inconsistent role of the local *élite* probably already from the 3rd century onwards (Vermeulen 2012).

Over the centuries, it is this coastal zone that has suffered the more intense transformation, both from the action of natural forces and from human interference, partly to counter such natural phenomena.

The result of the interdisciplinary work by the Ghent team of geomorphologists provides strong evidence of the critical hydrogeological conditions of the area at the mouth of the river, the bed of which moved significantly from Roman times into the Middle Ages (Corsi *et al.* 2009).

No religious building is attested in or in the proximity of the urban area until the 12th century AD.

### **From *curtes* to *castella* (9th – 11th centuries AD)**

While the Lombard occupation of a large part of the district improved the exploitation of the silvo-pastoral resources of territories that had suffered strong demographic declines, as well as economic collapse, causing the disappearance or serious disruption of many urban centres, the agrarian revival of the region from the 8th century onwards was characterised by the recultivation of more and more wastelands.

On the basis of written sources, starting from the 9th century, the layout of the rural structures named *curtes*, through which the agricultural lands belonging to a village were managed, is well-documented.

In the Potenza Valley these estates, the core of which have been identified through artefact surveys, are often the property of ecclesiastical entities, such as the Farfa Abbey (Virgili 2014, 47-53). Some estates belonged to other monastic and episcopal churches, as a result of the administrative consolidation and the favourable policy towards the great imperial monasteries implemented after the Frankish conquest (AD 774).

The term *curtis* means an organizing centre for the collection and coordination of agricultural enterprises, divided between the *pars dominica* and the *massaricium*, bound by the corvée constraint (Fumagalli 1983, 44-49). From documents we know that in our territory *curtes* were small enterprises, mostly characterised by an incoherent articulation of the farm units. As typical forms of the rural landscape, documents mention *terra*, *vinea*, and *silva* with, from the end of the 9th century onwards, sporadic reference to olive plants in orchards, near vineyards and cultivated fields (Bernacchia 2012, 109).

In the overall process of centralisation, religious buildings constituted a link between the old organisation and the new aggregations. As we have seen, there is a recurring pattern in the building of *pievi* in abandoned

Roman urban areas (as in Septempeda, Trea, and Ricina), where the choice of the location seems to have been motivated by the ease of finding building material and the need to stay close to the main road.

It is also attested that around the 10th century AD several of the more-eminent ancient village-estates were fortified, giving rise to the first forms of *incastellamento*.

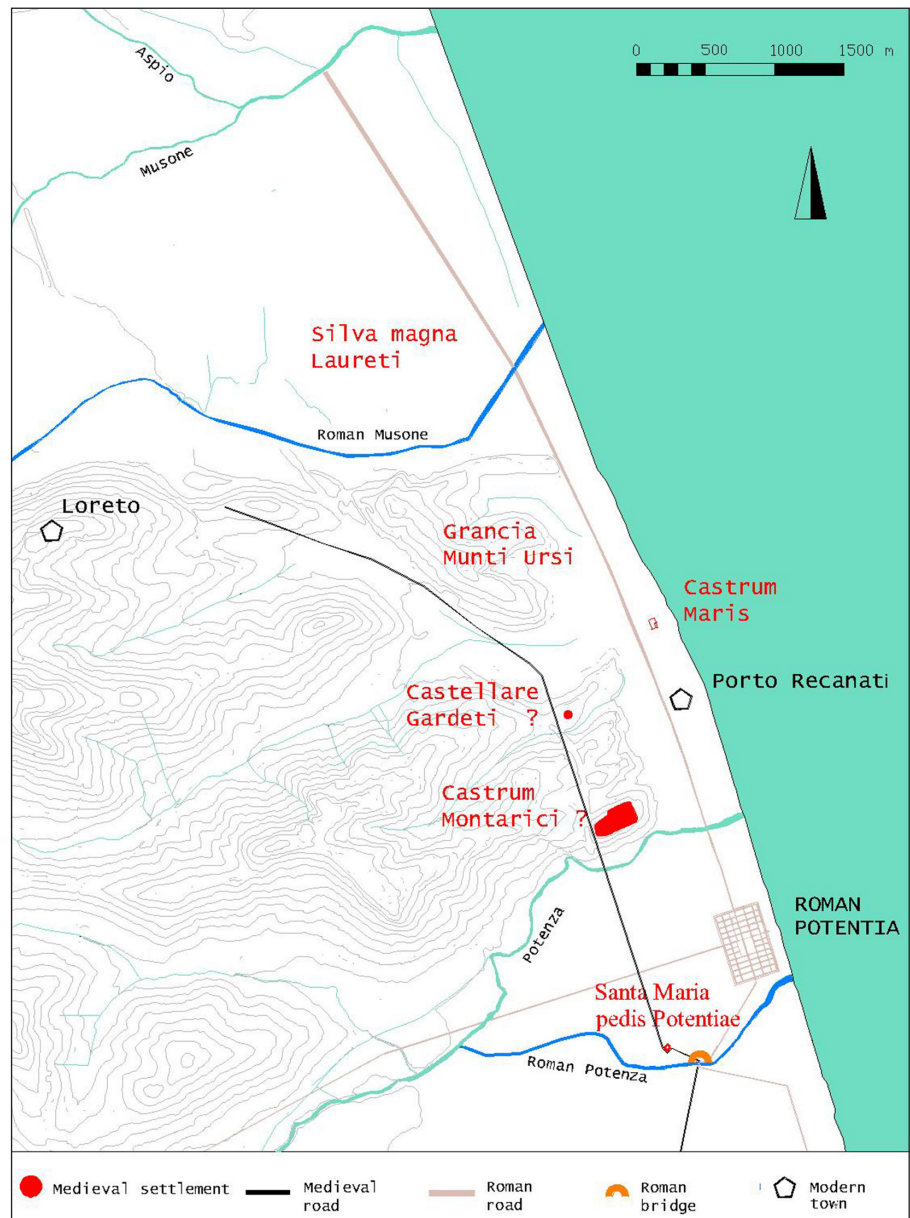
An almost total lack of excavations aimed at understanding this kind of structures in our region impedes the insight into them. And as a result of the perishable nature of the construction materials used during this period, usually obliterated by later masonry structures, there is hardly any material evidence at all. Nevertheless, data from archive sources, comparisons with other regional frameworks, and the interpretation of traces detected through remote-sensing investigations allow us to reconstruct these settlements, which consisted mostly of a round- or ovoid-shaped enclosure located on the summit of a hill. The precinct was surrounded by a protective ditch and an earthen bank (*ripa*) made from the dug-out soil of the ditch, which documents call *carbonaria*, probably because of their similarity to the wood-and-earth stacks used for the production of coal (*carbo* in Latin). On top of the *ripa*, or just behind it, a palisade (*clausimen*) was built, with only one entrance. There was possibly a single tower inside the enclosure or on the highest or best-oriented point of the settlement, although the references to such features are extremely scarce for this period. In only 3 documents before the 11th century AD do we find the mention of *muris*, referring to masonry structures; therefore, together with the few excavation data available and the comparison with other regional cases, let us imagine these *castra* as made mostly of wood (Bernacchia 2002 – 2003; Bernacchia 2012, fig. 2; Moscatelli 2006).

In the framework of the Marche region the relationship between *curtis* and *castrum* is extremely close, as witnessed by documentary sources, where we find the chronologically subsequent mention of '*curtes cum castro* (or *castello*)' and '*castrum* (or *castellum*) *cum curtis*'. Indeed, the original feature of the regional *incastellamento* seems to have consisted of the fortification of an already existing settlement, whose premises had been established by the *curtensis* system (Bernacchia 2002, 134-142).

### **Transformation in the Potenza coastal area (6th – 12th centuries AD)**

After having described in a nutshell the general lines of the settlement dynamics in central Adriatic Italy following the disruption of the Roman estate system, we can more closely analyse these phenomena in the zone of the Potenza corridor overlooking the sea, whose jurisdiction in the 12th century is well-attested by written documents.

Fig. 3: Archaeological map of the coastal area bounded by the Rivers Musone and Potenza in the 12th century AD with interpretation of the detected settlements based on documentary sources (© Francesca Carboni, Frank Vermeulen).



This coastal area is today bounded by the mouths of the Rivers Musone and Potenza, whose current courses are the result of forced deviations achieved after the beginning of the 15th century AD. During the studied period the two watercourses always had the tendency to migrate away from the left bank of their riverbeds. The coastal plain transformation and the creation of wetland areas in this boundary zone is documented by archive sources and has been confirmed, for the part traversed by the River Potenza, by the targeted geo-archaeological research carried out by the Ghent team, revealing the presence of two major palaeochannels (Corsi et al. 2009).

One of these is the fossil bed that the river maintained in the period between the 3rd century BC and its

complete burial, dating to the end of the Middle Ages. In the area at the mouth of this palaeochannel one can probably locate the port of ancient Potentia, whose existence is corroborated by the many archaeological clues that witness the commercial vitality of the colony since its foundation and its inclusion in wide maritime trade networks (Carboni – Vermeulen in press; Percossi 2014). It has also been ascertained that in the post-classical period, following the end of centralised land management, the debouchment of the River Potenza changed to a deltaic system that eroded and destroyed the southern part of the Roman town site.

The historical research revealed that the present hydrological situation is the result of a complex

sequence of events of natural and man-made origin. Starting in 1229, a few projects were undertaken to bring about the confluence of the Rivers Potenza, Musone, and Aspio and facilitate the construction of a harbour. Despite repeated interventions to channel the Potenza and the achievement of the confluence of the River Musone into the Aspio stream at the beginning of the 15th century, the original design was eventually abandoned in 1574 (Moroni 1983, 73-77; Alfieri et al. 1965-1966, 9-17, table 2).

In the 12th century, when no attempts had been made yet to deviate the river northwards, the mouth of the delta was probably a marshland area not very suitable for permanent dense settlement and consolidated agricultural operations.

Before the so-called Peace of Polverigi in 1202, when the city of Recanati, organised as a free commune, established its power here, this area was under the control of a family known as Lords of the Marina (or Lords of the Poggio). An important document gives us a description of the landscape around that time: a sales contract dated to 1179, in which a member of this family,

Gislerius, sold to the prior of Farfa Abbey the land to the south of the ancient mouth of the River Musone (Vogel 1859, 7-9). The sold estates included '*de tota terra et de tota silva, de paludibus et de pascuis*', and indeed another source records little after the establishment by the Farfa monks of the grancia Munti Ursi, with the function of draining and cleaning this land (Saracco Previdi 1981, 17). Gislerius also distinguishes between possession and property, declaring to keep for himself the exploitation of '*venationem, forestam, stratam et portum*', thus proving the presence at the time of some kind of landing stage along this stretch of the coastline.

More or less in the same period, near the ancient course of the River Potenza, the agrarian reconquest started thanks to the abbey Santa Maria pedis Potentiae, which was ruled by the hospital order of Crucifers (Sella 1950, 431), whose church building is still preserved.

In the concerned time and space frames, two fortified settlements belonging to the Lords of the Marina are documented: the Castrum Podii or Montarice (Bernacchia 2002, 477-478), a toponym still attested in our territory, and the Castellare Gardeti (Grimaldi

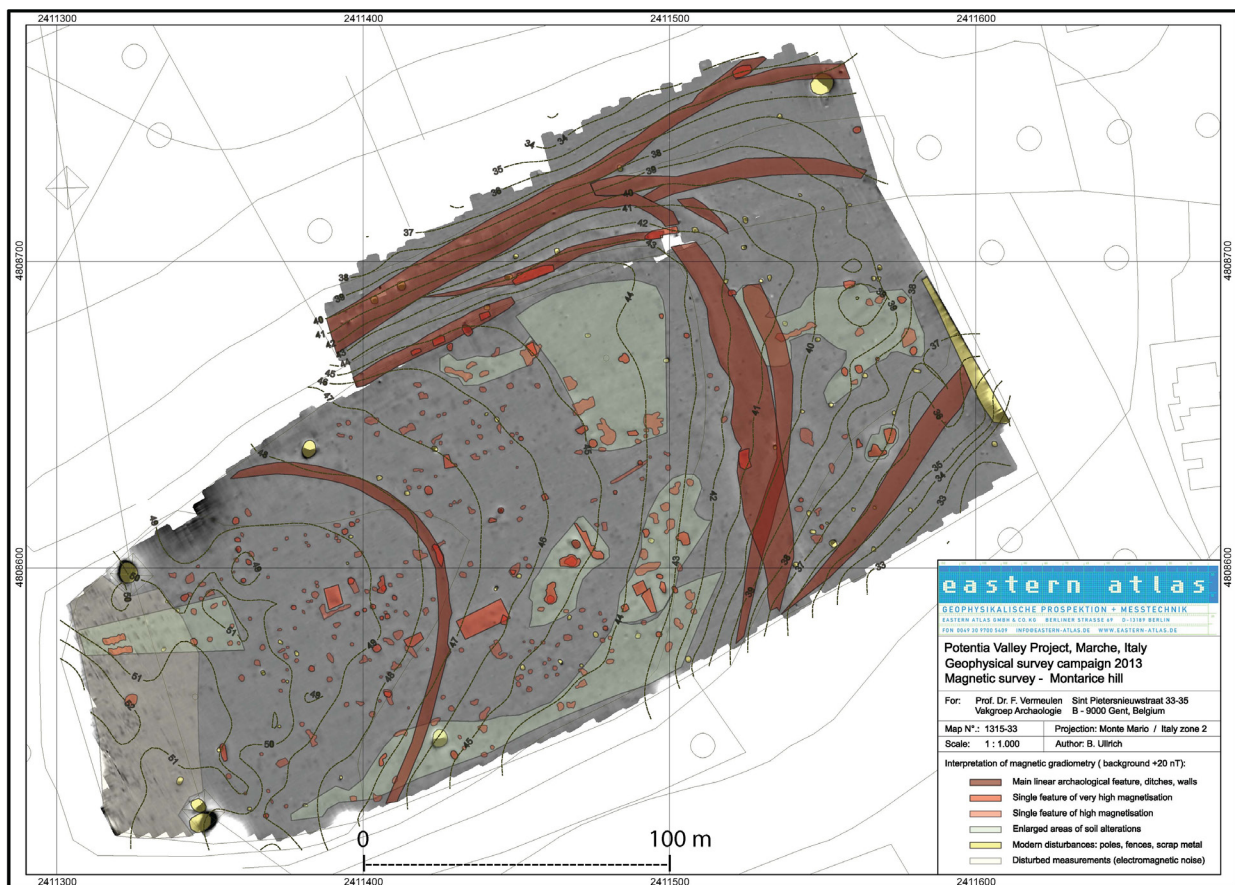


Fig. 4: Result and interpretation of the magnetometry survey (Eastern Atlas) conducted at Montarice in 2013 (© Francesca Carboni, Frank Vermeulen).



1983, 25-26), whose name, of Germanic origin (*warda*), suggests a site located in a controlling position, possibly of the street or of the port mentioned above (*Baldetti 1999*, 11). Apparently, no material trace of these fortified settlements has survived, even if local literary sources testify of some ruins still visible until the 18th century (*Galiè 1987*, 556-560). Nevertheless, some earlier hypotheses for the location of these settlement sites (*Alferi et al. 1965-1966*, table 5) can now be checked and refined thanks to our new research data (Fig. 3).

On the plateau of Montarice, located only 900 metres north-west of the wall circuit of Potentia, where the full range of remote-sensing investigations applied by the team from Ghent University led to the identification of an impressive Bronze and Iron Age settlement with an excellent controlling position, the same non-invasive surveys have revealed important information regarding the date of later settlement phases.

Even in the absence of stratigraphic data, it is significant how the artefact surveys indicate a reoccupation of the site from the 6th century AD onwards, contemporary with the gradual abandonment of the Roman city at the mouth of the river. The presence of certain soapstone and ceramic finds from the 7th through 9th centuries seems to individualise a settlement dated between the Lombard and Carolingian periods, while most of the pottery consists of the common wares typical for the 10th through 12th centuries. Only an excavation will be able to ascertain how many of the positive crop marks and the subsoil anomalies picked up by geophysics (Fig. 4) pertain to evidence related to a protohistoric or to an early medieval settlement, possibly relating to the *Castrum Montarice*.

For the localisation of a structure that might be associated with the *Castellare Gardeti*, instead, we refer

to the unexpected recognition of a circular crop mark in a, by chance, not-yet-urbanised area of the modern agglomeration of Porto Recanati, when analysing the satellite imagery on the web platform Google Earth. Further aerial photographs better delineated the trace (Fig. 5). A subsequent field survey in the area of the detected crop mark, with a diameter of some 60 m, revealed the presence of building material on a hillock inside the space bordered by the outline (of a ditch ?), while local archaeologists recently found here a coin of the Emperor Otto the I (962-972). The location of this feature is significant for its relation with the *Castrum Maris*, of which the so-called *Castello Svevo* is still preserved. It was built in defence of the new and largest port, never completed, granted to the inhabitants of Recanati by Frederick II in the 13th century (*Foschi 1995*).

## Conclusion

We can conclude by stating that it is a major task to make this period of reorganisation and restructuration of the human landscape more visible than it is today. A real understanding of the main processes and detailed shifts will be possible only after acquiring excavation data. Nevertheless, we believe we have demonstrated that the results of the geo-archaeological survey support the medieval historical documents in better defining how the particular hydrographical conditions of this area contributed to the modelling of a varied landscape in which cultivated fields were alternated with forests, pastures, and marshes. The management system of this area had to be based mainly on multiple forms of exploitation of the environmental resources typical of wetlands. Also significant is the detection of what seems



Fig. 5: Enhanced oblique aerial photograph of a circular vegetation mark in a green area on the outskirts of the modern agglomeration of Porto Recanati (© Francesca Carboni, Frank Vermeulen).

to be evidence of a medieval *motte* surrounded by a ditch, whose presence is exceptional for the Marche, but which exhibits similarities to fortified settlements in Central and Northern Italy, mainly in marshlands (Settia *et al.* 2014).

We could have indeed further discussed the above-mentioned sales contract concerning the administrative organisation of this area, also based on the exploitation of common lands, but we wished to emphasise we had found the first reference of a *portus* along this stretch of coast, after the avulsion of the River Potenza had transformed the fertile Roman plain, silently obscuring the ancient port settlements and part of the coastal colony. From the age of Frederick II until the end of the Middle Ages, the river's shifting has been reported as due to the human will to deviate its mouth north of the *Castrum Maris*.

It is so that in this particular area, the logic of the settlement dynamics in the transition period between Late Antiquity and early medieval times cannot be explained from a perspective of continuity/discontinuity or through the logic of concentrated land tenure, but instead must take into account the peculiar transformation process of this landscape, where the struggle to realise an opening to the sea seems to have been more essential than any effort for land reclamation.

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